

NASA TECH BRIEF



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Electrochemical Milling Removes Burrs and Solder from Tubing Ends

The problem:

To devise an effective method for removing burrs and solder from the cut ends of stainless steel capillary tubing in soft soldered bundles.

The solution:

Remove the burrs and solder around the passages on the ends of the tubing by electrochemical milling, using an electrolyte consisting primarily of a solution of sulfuric and phosphoric acids.

How it's done:

The tube bundle is connected as an anode, with the cut end of the bundle positioned in the electrolyte at a distance of 0.25 to 0.50 inch from a copper cathode. The cut end of the bundle is held in a flat ring, making the tubing ends to be milled flush with the surface of

the ring. The electrolysis is carried out with a direct current at 3 to 8 volts applied to the electrodes.

Note:

Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
Marshall Space Flight Center
Huntsville, Alabama 35812
Reference: B66-10358

Patent status:

No patent action is contemplated by NASA.

Source: J. O. Hinshaw
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